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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------------|------------------|
| 10/813,149 | 03/30/2004 | Kevin George Harding | 131103-1/YOD GERD:0124 | 5421 |
| 7590 04/25/2006 | | | EXAMINER | |
| Patrick S. Yoder FLETCHER YODER P.O. Box 692289 Houston, TX 77269-2289 | | | STAFIRA, MICHAEL PATRICK | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2877 | |

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/813,149 | | HARDING ET AL. | |
| | Examiner | | Art Unit | |
| | Michael P. Stafira | | 2877 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,8,11,14-17 and 22-29 is/are rejected.
- 7) ☒ Claim(s) 6,9,10,12,13 and 18-21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/13/2006</u> , <u>3/30/2004</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-5, 8, 14, 16, 17, 22-24, 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Obara et al. ('169).

Claim 1, 16, & 23

Obara et al. ('169) discloses a first scanning system having a first resolution, wherein the first scanning system is operable to perform a first scan of a surface area of an object to identify a location of a surface abnormality in the object (Col. 8-9, lines 61-13); and a second scanning system having a second resolution, the second resolution being a higher resolution than the first resolution, wherein the second scanning system is operable to receive the location of the surface abnormality from the first scanning system and to define a region of the object around the location of each surface abnormality to automatically scan with the second scanning system (Col. 9, lines 36-51).

Claim 2

Obara et al. ('169) discloses the second scanning system defines a specific region around each location of a plurality of surface abnormalities provided by the first scanning system to automatically scan with the second scanning system (Col. 9, lines 36-51).

Claim 3 & 24

The reference of Obara et al. ('169) further discloses the region scanned by the second

scanning system is smaller in area than the surface area of the object scanned by the first scanning system (Col. 9-10, lines 65-14).

Claim 4 & 26

Obara et al. ('169) further discloses the first scanning system comprises a machine vision system (See Fig. 1).

Claim 5 & 27

Obara et al. ('169) further discloses the second scanning system comprises a machine vision system (See Fig. 1).

Claim 8 & 17

Obara et al. ('169) further discloses the second scanning system is operable to provide two-dimensional data representative of the region of the object (See Fig. 28a, 28b).

Claim 14, 22, & 28

Obara et al. ('169) further discloses the first scanning system is coupled to control circuitry, wherein the control circuitry identifies a surface abnormality by comparing the first resolution scan with a reference image of the surface area of the object (Col. 9, lines 14-24).

6. The system of claim 1, wherein the second resolution is at least ten times smaller than the first resolution.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7, 11, 15, 25, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obara et al. ('169).

Claim 7 & 25

Obara et al. ('169) discloses the claimed invention except for the second resolution is at least ten times smaller than the tolerance of the defect. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Obara et al. ('169) with ten times smaller tolerance since it was well known in the art that using a resolution that is tens times smaller increases the resolution of the defect, therefore providing clearer resolution and identification of the defect.

Claim 11 & 29

Obara et al. ('169) discloses the claimed invention except for scanning the surface area of the object at a first speed and the second at a different speed with the first faster than the second. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Obara et al. ('169) with the different speeds since it was well known in the art that scanning at a faster speed reduces the amount of time to image the region than a slow speed, therefore using the two different speed produces two different resolution which than provide a better comparison of the defect information.

Claim 15

Obara et al. ('169) discloses the claimed invention except for a user to define the size of a surface variation to direct the scanning system for surface abnormality. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine

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Obara et al. ('169) with the user interface since it was well known in the art that different quality limits are used for different types of products, therefore allowing the user to change the define size increases the capabilities of the apparatus to measure different forms of the region and increase efficiency.

Allowable Subject Matter

4. Claims 6, 9-10, 12-13, 18-21 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

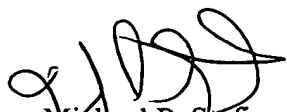
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Michael P. Stafira
Primary Examiner
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March 31, 2006